The claims are:

1. A graft, comprising:

a wall forming a lumen; and

an amphiphilic block copolymer coating a surface of the wall;

wherein the amphiphilic block copolymer comprises a network including both hydrophobic and hydrophilic polymer chains that is able to swell in both hydrophobic and hydrophilic solvents.

2. The graft of claim 1, wherein the amphiphilic block copolymer coating carries a drug of a type and in an effective amount to significantly inhibit one or more of stenosis, vascular narrowing, and thrombosis.

3. The graft of claim 2, wherein the wall forms a lumen with a diameter less than or equal to about 5 mm.

4. The graft of claim 2, wherein the amphiphilic block copolymer comprises poly(alkylene glycol) chains and poly(olefin) chains.

5. The graft of claim 4, wherein the block copolymer further comprises polysiloxane chains.

6. The graft of claim 2, wherein the drug is selected from the group consisting of triazolopyrimidine, paclitaxol, sirolimus, derivatives thereof, and analogs thereof.

7. The graft of claim 6, wherein the drug is triazolopyrimidine, a derivative thereof, or an analog thereof.

8. The graft of claim 2, wherein the drug is selected from the group consisting of stem cells, antibodies, genetic materials, and lymphokines.

9. The graft of claim 8, wherein the drug is stem cells.

10. The graft of claim 8, wherein the drug is GM-CSF.

11. The graft of claim 2, wherein the copolymer can be designed to carry any of the drugs triazolopyrimidine, paclitaxol, and sirolimus and release from about 10 to about 90 percent of the drug within the first thirty days of installation in an artery of a living human being by varying lengths of the hydrophobic and hydrophilic polymer chains, ratios between chains, and/or extent of cross-linking.

12. The graft of claim 2, wherein the copolymer can be designed to carry any of the drugs stem cells, antibodies, genetic materials, and lymphokines and release from about 10 to about 90 percent of the drug within the first thirty days of installation in an artery of a living human being by varying lengths of the hydrophobic and hydrophilic polymer chains, ratios between chains, and/or extent of cross-linking.

13. The graft of claim 2, wherein the graft is coated with a plurality of layers, wherein one of the layers acts as a barrier to diffusion of the drug.

14. The graft of claim 13, wherein the barrier layer comprises parylene or a derivative thereof.

15. The graft of claim 2, wherein the graft once installed in an artery of a living human being releases from about 10 to about 90 percent of the drug within the first thirty days of installation.

16. The graft of claim 2, wherein the graft once installed in an artery of a living human being releases from about 10 to about 90 percent of the drug within the first six hours of installation.

17. The graft of claim 2, wherein the surface comprises polymer chains bound at one end to form a carpet-like structure and the amphiphilic polymer at least partially fills interstices within the carpet-like structure.

18. The graft of claim 1, wherein the surface comprises polymer chains bound at one end to form a carpet-like structure and the amphiphilic polymer at least partially fills interstices within the carpet-like structure.

19. The graft of claim 2, wherein the polymer coating remains stable during suturing of the graft.

20. The graft of claim 1, wherein the polymer is bioerodable.

21. The graft of claim 2, wherein the polymer is bioerodable.

22. The graft of claim 1, wherein the polymer is biostable.

23. The graft of claim 2, wherein the polymer is biostable.

24. The graft of claim 1, wherein the coating has a mean pore size in the range from about 1 to about 100 micrometers.

25. The graft of claim 1, wherein the coating has a mean pore size in the range from about 10 to about 50 micrometers.

26. A graft, comprising:

a wall forming a lumen, the wall having a surface to which polymer chains are bound at one end to form a carpet-like structure;

collagen coating the polymer-chain covered surface and at least partially filling interstices within carpet-like structure; and

within the collagen, a drug selected from the group consisting of triazolopyrimidine, a derivative thereof, or an analog thereof, stem cells, antibodies, genetic materials, and lymphokines in an amount effective to significantly inhibit one or more of stenosis, vascular narrowing, and thrombosis.

27. The graft of claim 26, wherein the drug is triazolopyrimidine a derivative thereof, or an analog thereof.

28. The graft of claim 26, wherein the drug is selected from the group consisting of stem cells, antibodies, genetic materials, and lymphokines.

29. The graft of claim 28, wherein the drug is stem cells.

30. The graft of claim 28, wherein the drug is GM-CSF.

31. A method of manufacturing a graft, comprising:

providing a wall forming a lumen; and

forming over a surface of the wall a coating comprising an amphiphilic block copolymer, wherein the amphiphilic block copolymer comprises

a network of both hydrophobic and hydrophilic polymer chains that is able to swell in both hydrophobic and hydrophilic solvents.

32. The method of claim 31, further comprising:

forming a solution comprising a solvent and a drug that inhibits one or more of stenosis, vascular narrowing, and thrombosis; and

swelling the polymer with the solution.

33. The method of claim 31, further comprising:

evaporating to remove at least some of the solvent from the polymer; and

swelling the polymer a second time with the same or another solution containing the drug.

34. The method of claim 31, wherein, forming a coating comprising an amphiphilic block copolymer comprises coating the surface with a solution of macro-monomers together with a drug and polymerizing the macro-monomers.

35. The method of claim 31, wherein forming a coating comprises spin coating.

36. The method of claim 31, wherein the copolymer can be designed to carry any of the drugs triazolopyrimidine, paclitaxol, and sirolimus and release from about 10 to about 90 percent of the drug within the first thirty days of installation in an artery of a living human being by varying lengths of the hydrophobic and hydrophilic polymer chains, ratios between chains, and/or extent of crosslinking.

37. The method of claim 31 wherein the copolymer can be designed to carry any of the drugs stem cells, antibodies, genetic materials, and lymphokines and release from about 10 to about 90 percent of the drug within the first thirty days of installation in an artery of a living human being by varying lengths of the hydrophobic and hydrophilic polymer chains, ratios between chains, and/or extent of crosslinking.

38. The method of claim 31, further comprising disposing a stent within the wall, wherein the stent is configured to expand the lumen.

39. The method of claim 38, further comprising forming the stent by a process comprising microelectomechanical machining.

40. The method of claim 39, wherein the microelectromechanical machining is used to form teeth or other indentations that are part of a ratcheting mechanism.

41. A method of treating a living human being, comprising,

installing a graft according to claim 1 to form a conduit for blood circulating through the body of the human being;

42. The method of claim 41, wherein the amphiphilic block copolymer carries a drug of a type and in an effective amount to significantly inhibit one or more of stenosis, vascular narrowing, and thrombosis.

43. The method of claim 42, wherein the drug is selected from the group consisting of triazolopyrimidine, paclitaxol, sirolimus, lymphokines, derivatives thereof, and analogs thereof.

44. The method of claim 42, wherein the drug is selected from the group consisting of stem cells, antibodies, genetic materials, and lymphokines.

45. The method of claim 44, wherein the drug is stem cells.

46. The method of claim 44, wherein the drug is GM-CSF.

47. The method of claim 42, further comprising administering the drug to the patient either orally or intravenously.

48. A method of treating coronary artery disease comprising the method of claim 41.

49. The method of claim 48, wherein the amphiphilic block copolymer carries a drug of a type and in an effective amount to significantly inhibit one or more of stenosis, vascular narrowing, and thrombosis.

50. The method of claim 49 wherein the drug is triazolopyrimidine, a derivative thereof, or an analog thereof.

51. The method of claim 49, wherein the drug is selected from the group consisting of stem cells, antibodies, genetic materials, and lymphokines

52. A graft, comprising:

a wall forming a lumen; and

microparticles of amphiphilic block copolymer within a coating on a surface of the wall;

wherein the amphiphilic block copolymer comprises a network including both hydrophobic and hydrophilic polymer chains that is able to swell in both hydrophobic and hydrophilic solvents; and

the amphiphilic block copolymer coating carries a drug of a type and in an effective amount to significantly inhibit one or more of stenosis, vascular narrowing, and thrombosis.

53. The graft of claim 52, wherein the wall forms lumen with a diameter less than or equal to about 5 mm.

54. The graft of claim 52, wherein the coating comprises collagen.

55. The graft of claim 52, wherein the drug is selected from the group consisting of triazolopyrimidine, paclitaxol, sirolimus, derivatives thereof, and analogs thereof.

56. The graft of claim 52, wherein the drug is selected from the group consisting of stem cells, antibodies, genetic materials, and lymphokines.

57. The graft of claim 56, wherein the drug is stem cells.

58. The graft of claim 56, wherein the drug is GM-CSF.